Docket Number

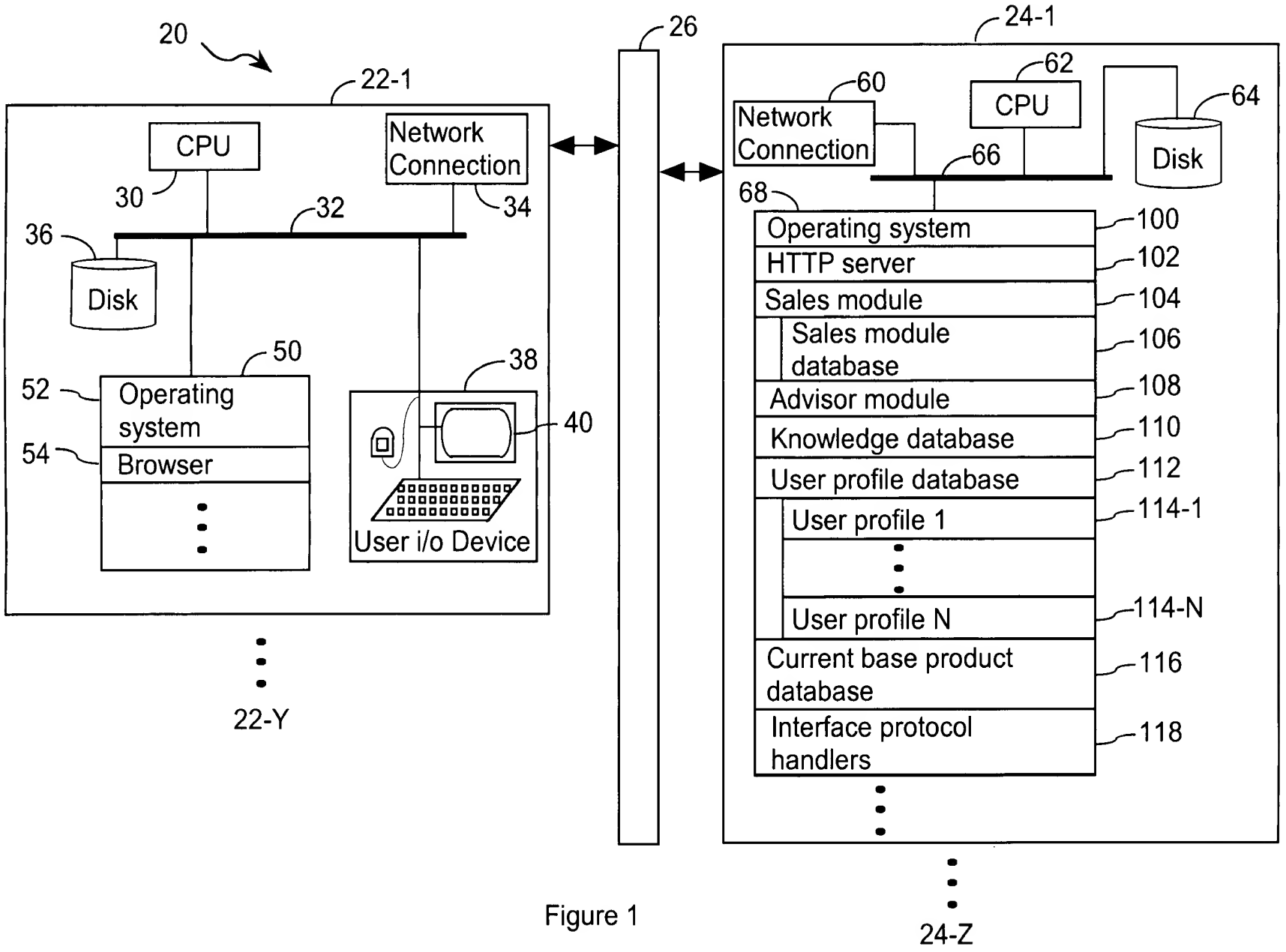

Figure 1

User profile
114

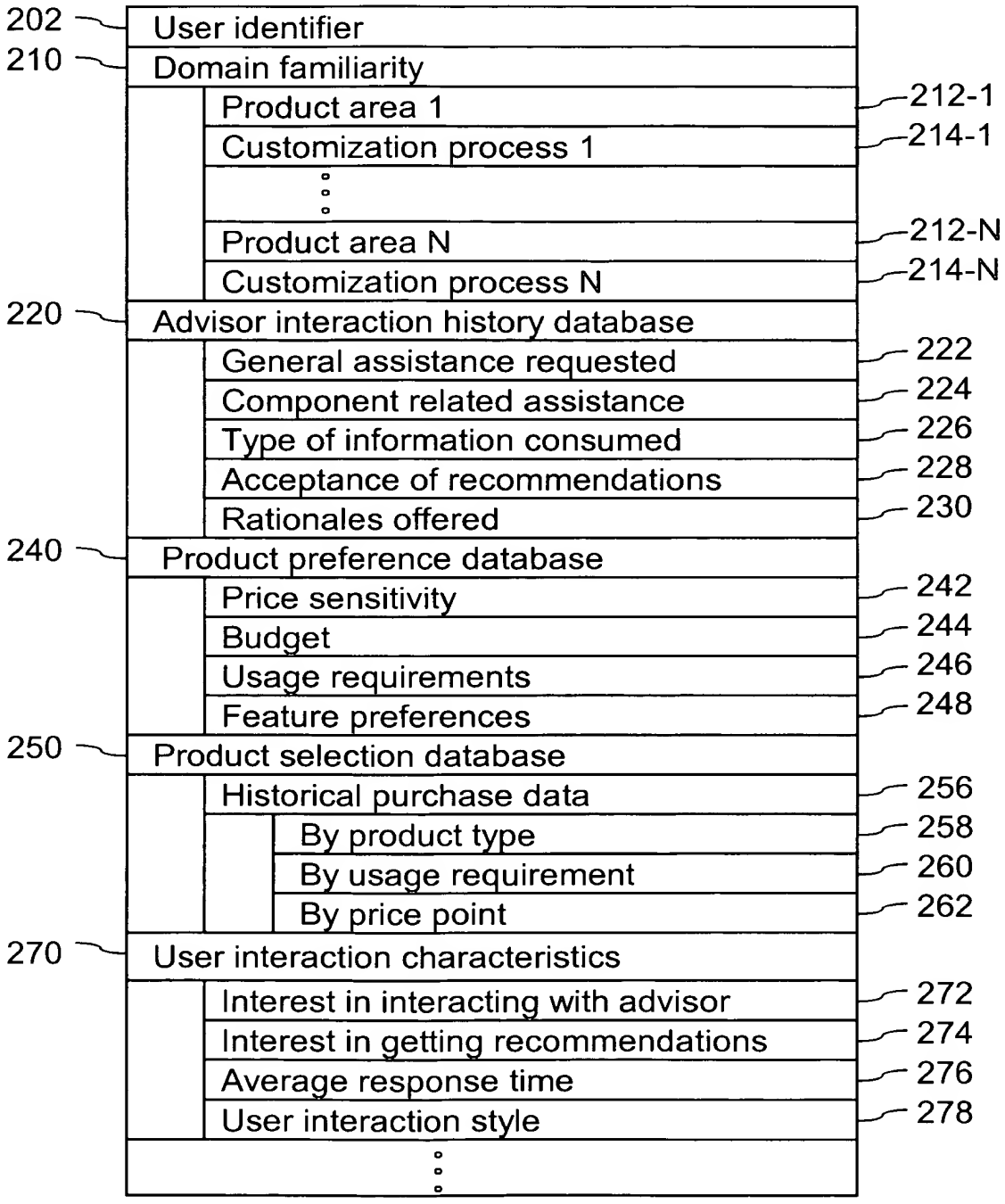

Figure 2

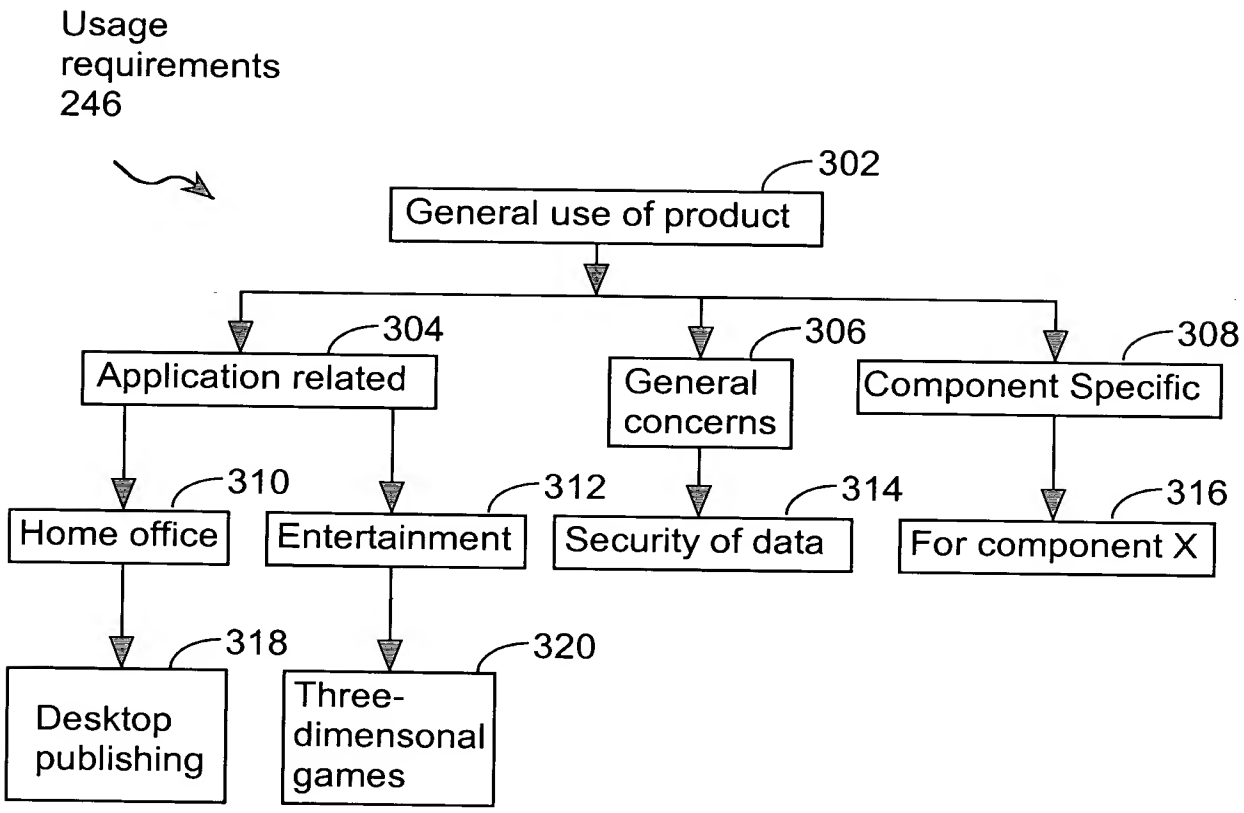
Usage requirements 246
302
General use of product
304
Application related
306
General concerns
308
Component Specific
310
Home office
312
Entertainment
314
Security of data
316
For component X
318
Desktop publishing
320
Three-dimensonal games

Figure 3

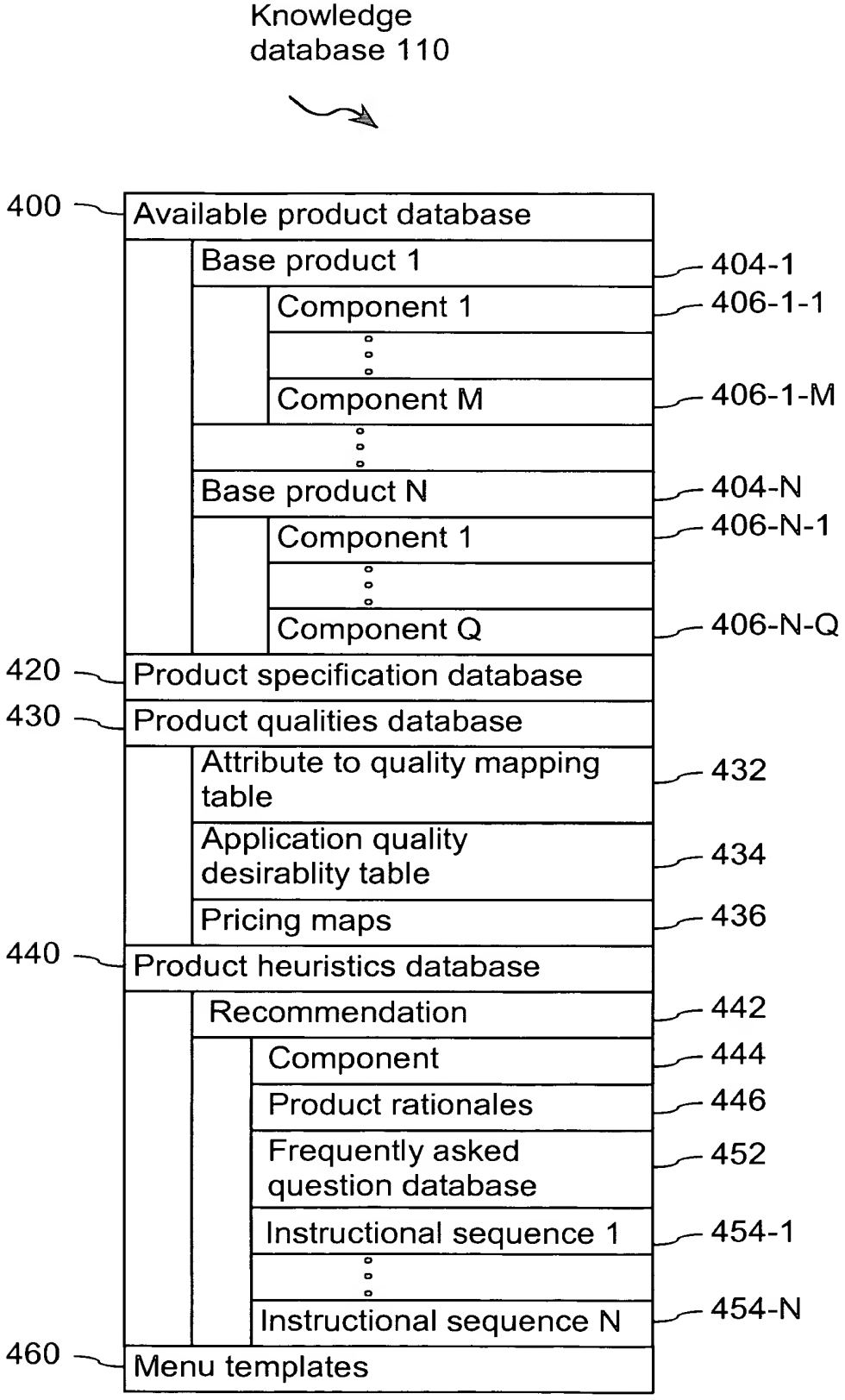
Knowledge database 110
400
Available product database
Base product 1
404-1
Component 1
406-1-1
Component M
406-1-M
Base product N
404-N
Component 1
406-N-1
Component Q
406-N-Q
420
Product specification database
430
Product qualities database
Attribute to quality mapping table
432
Application quality desirablity table
434
Pricing maps
436
440
Product heuristics database
Recommendation
442
Component
444
Product rationales
446
Frequently asked question database
452
Instructional sequence 1
454-1
Instructional sequence N
454-N
460
Menu templates

Figure 4

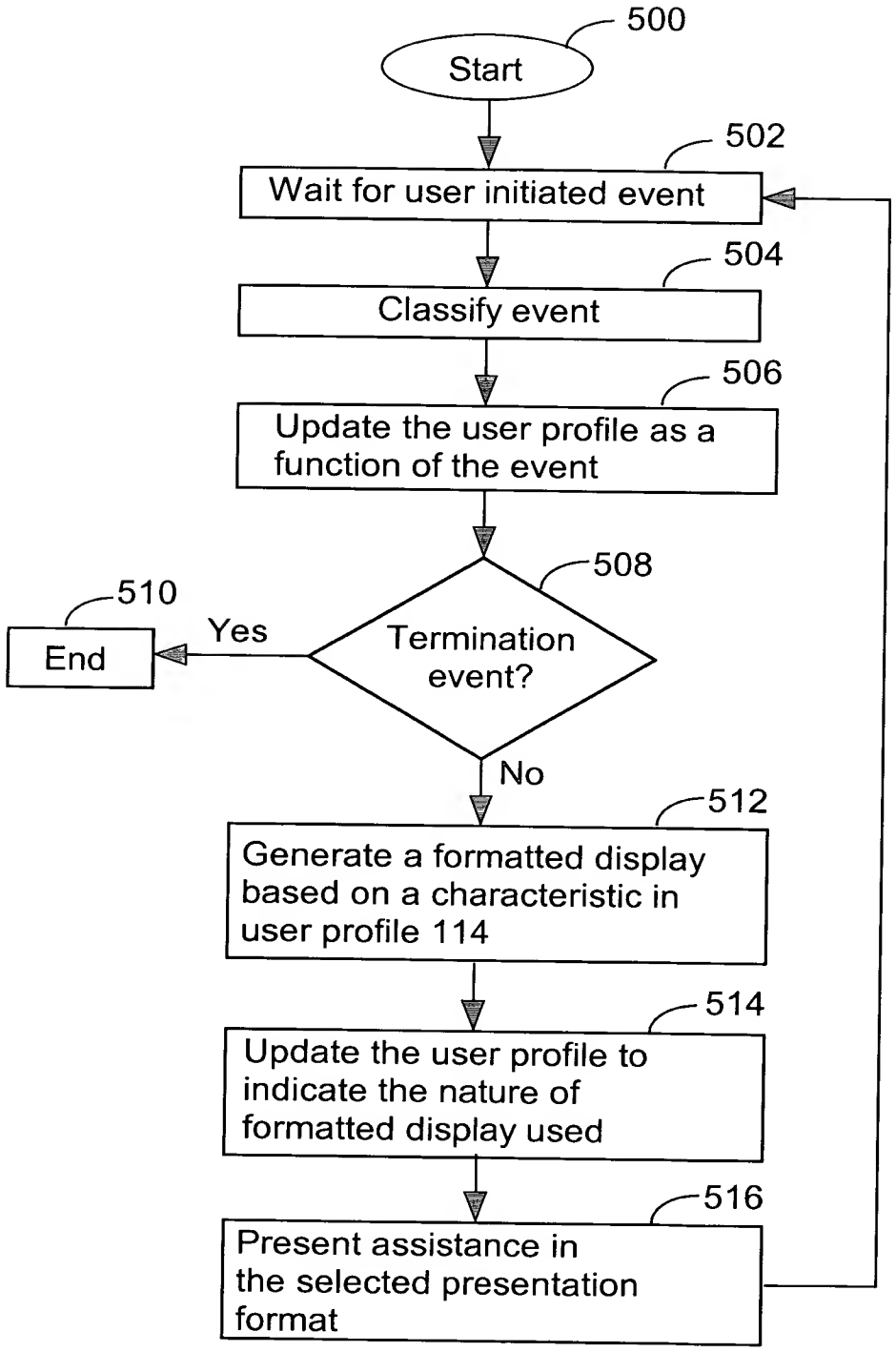
500
Start
502
Wait for user initiated event
504
Classify event
506
Update the user profile as a function of the event
508
Termination event?
Yes
510
End
No
512
Generate a formatted display based on a characteristic in user profile 114
514
Update the user profile to indicate the nature of formatted display used
516
Present assistance in the selected presentation format

Figure 5

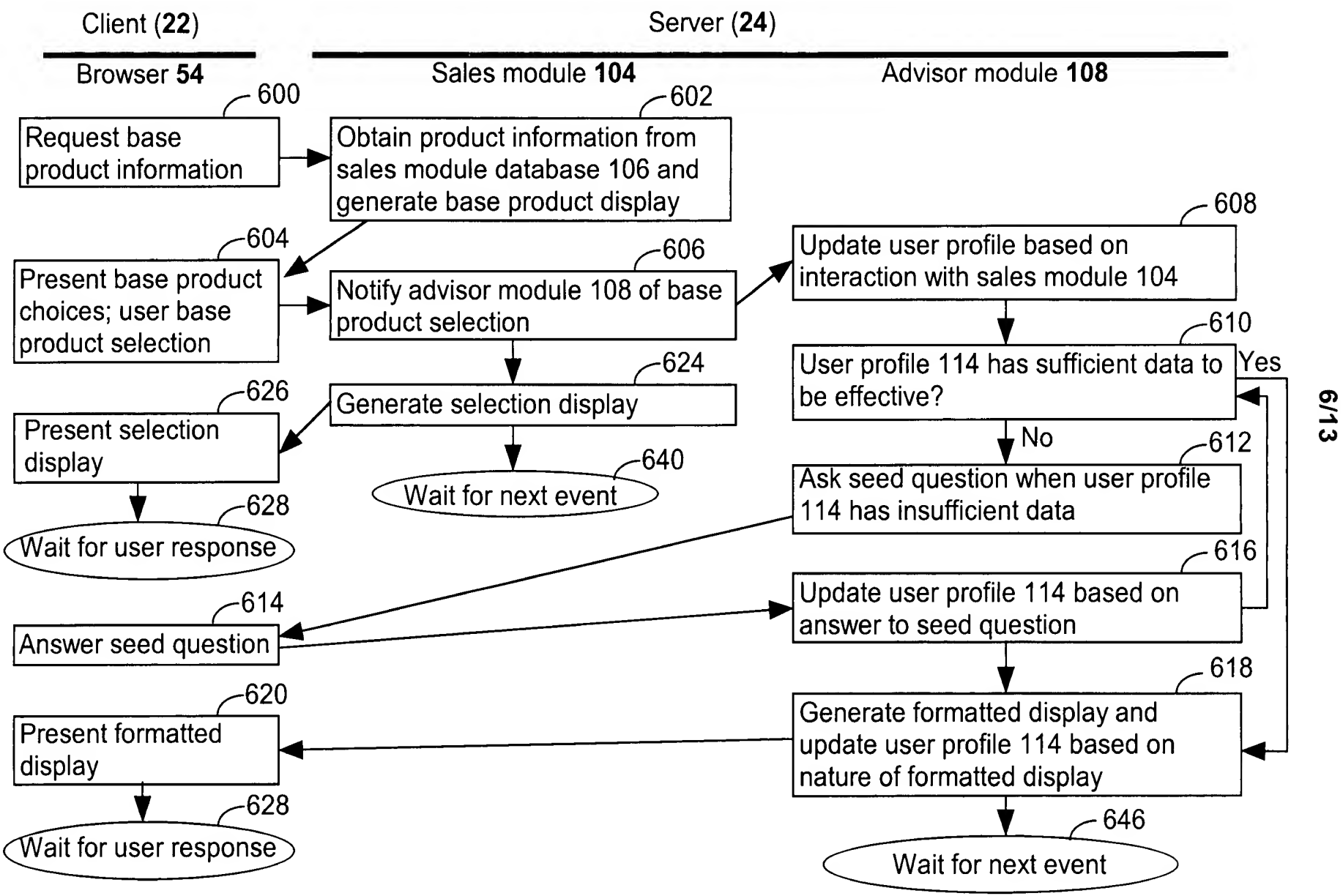
Client (22)
Server (24)
Browser 54
Sales module 104
Advisor module 108
600
Request base product information
602
Obtain product information from sales module database 106 and generate base product display
604
Present base product choices; user base product selection
606
Notify advisor module 108 of base product selection
608
Update user profile based on interaction with sales module 104
610
User profile 114 has sufficient data to be effective?
Yes
No
612
Ask seed question when user profile 114 has insufficient data
614
Answer seed question
616
Update user profile 114 based on answer to seed question
618
Generate formatted display and update user profile 114 based on nature of formatted display
620
Present formatted display
624
Generate selection display
626
Present selection display
628
Wait for user response
628
Wait for user response
640
Wait for next event
646
Wait for next event

Figure 6A

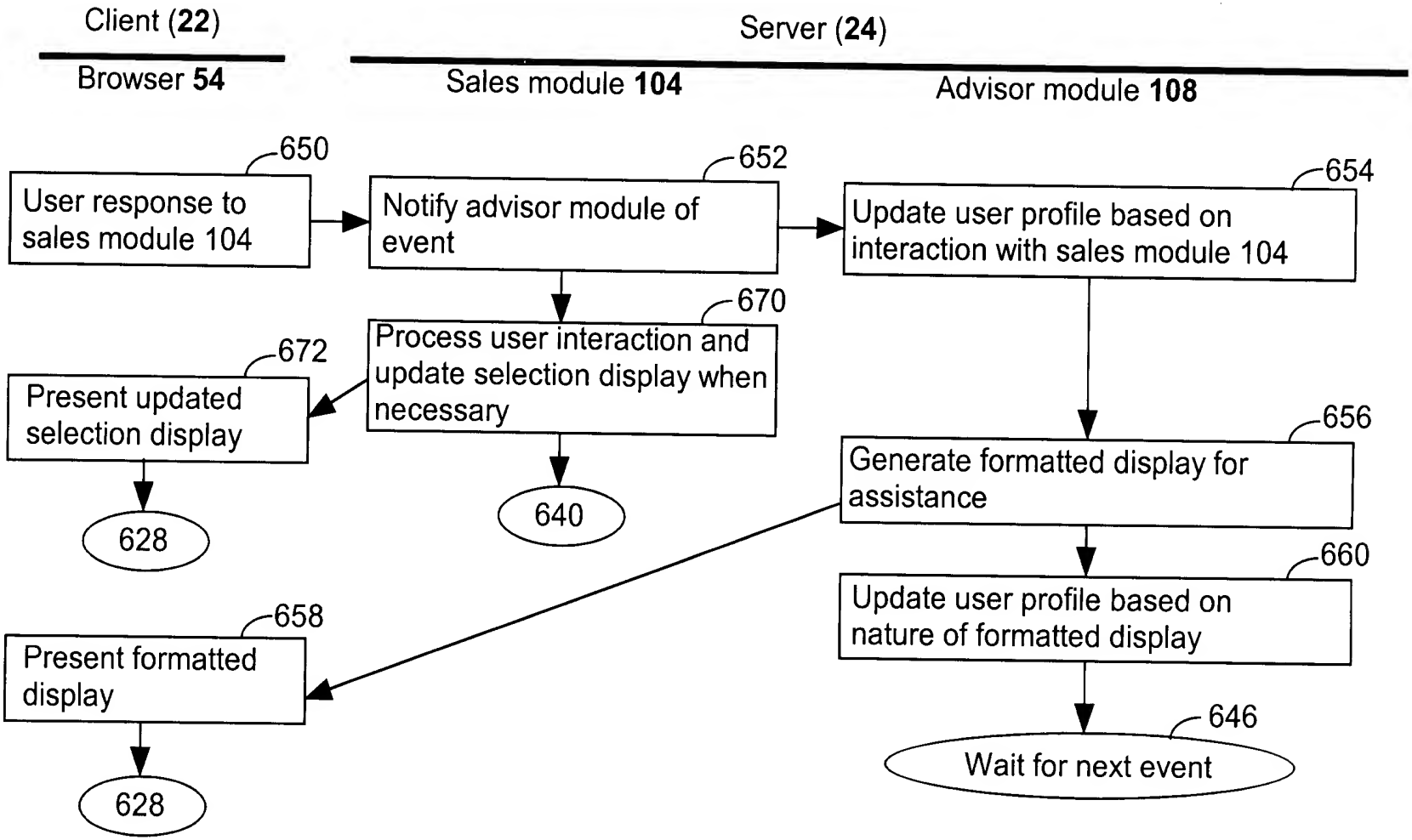
Client (22)
Server (24)
Browser 54
Sales module 104
Advisor module 108
650
User response to sales module 104
652
Notify advisor module of event
654
Update user profile based on interaction with sales module 104
670
Process user interaction and update selection display when necessary
672
Present updated selection display
656
Generate formatted display for assistance
628
640
660
Update user profile based on nature of formatted display
658
Present formatted display
646
Wait for next event
628

Figure 6B

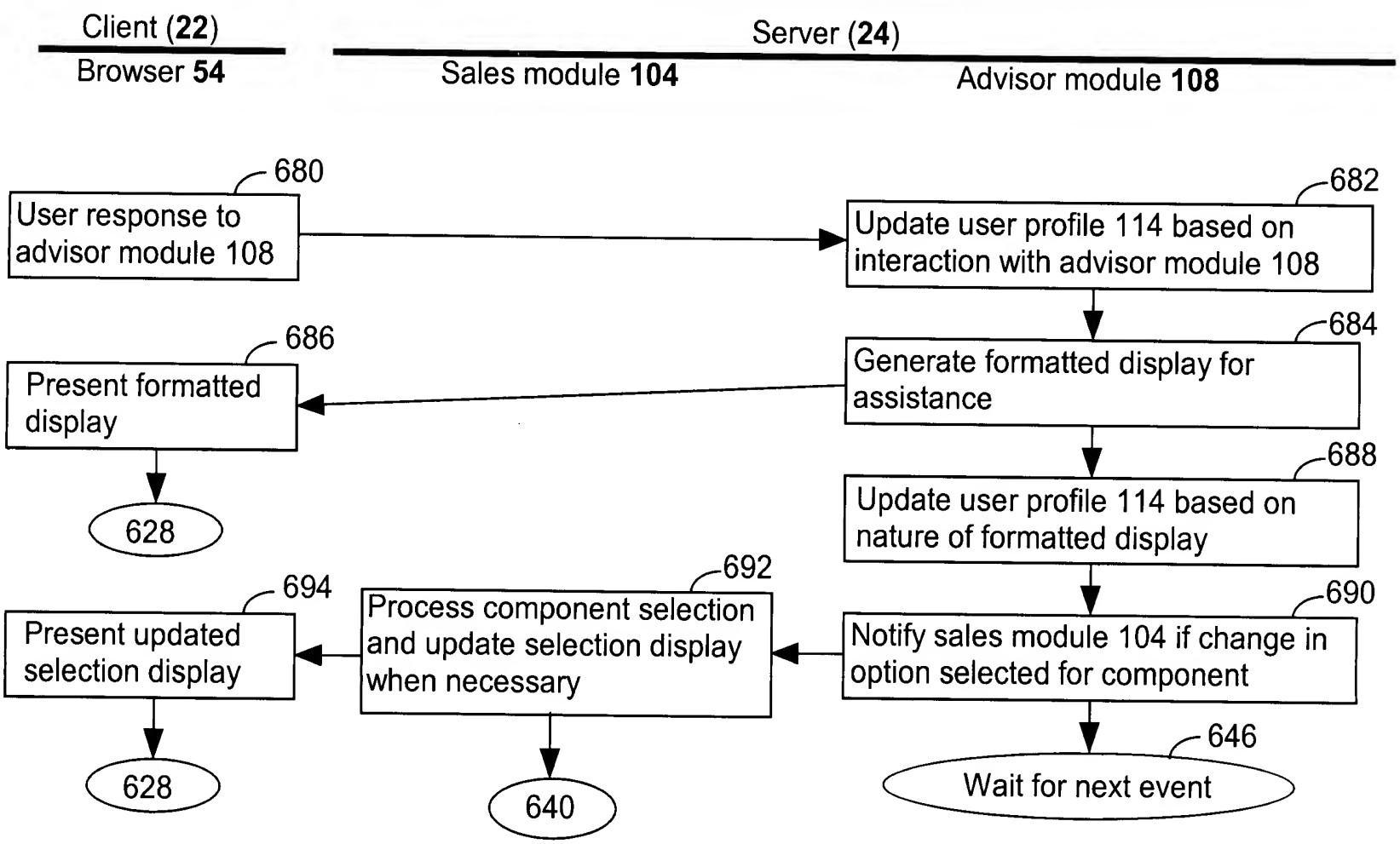
Client (22)
Browser 54
Server (24)
Sales module 104
Advisor module 108
680
User response to advisor module 108
682
Update user profile 114 based on interaction with advisor module 108
684
Generate formatted display for assistance
686
Present formatted display
628
688
Update user profile 114 based on nature of formatted display
690
Notify sales module 104 if change in option selected for component
692
Process component selection and update selection display when necessary
694
Present updated selection display
628
640
646
Wait for next event

Figure 6C

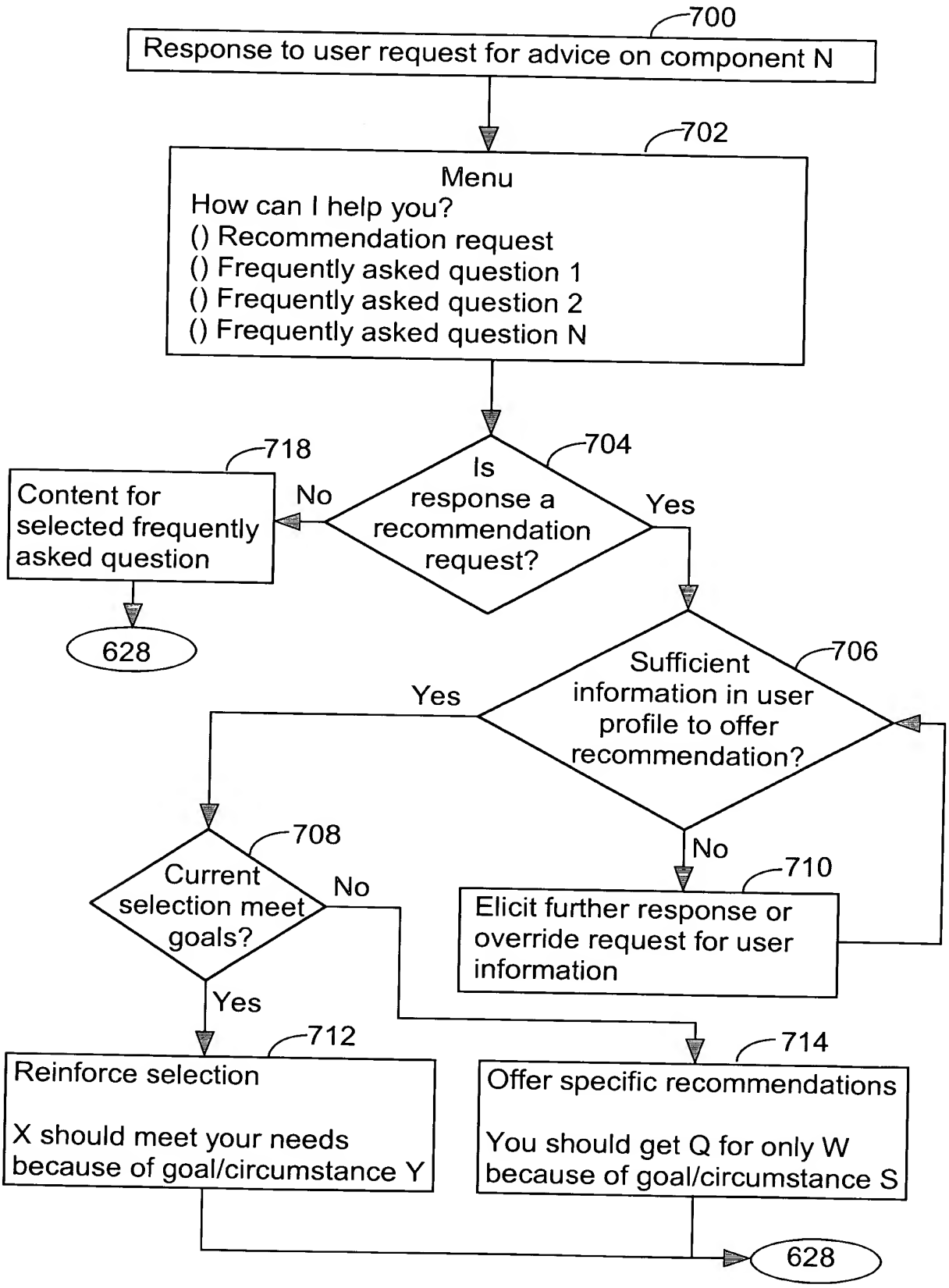
700
Response to user request for advice on component N
702
Menu
How can I help you?
() Recommendation request
() Frequently asked question 1
() Frequently asked question 2
() Frequently asked question N
704
Is response a recommendation request?
No
Yes
718
Content for selected frequently asked question
628
706
Sufficient information in user profile to offer recommendation?
Yes
No
708
Current selection meet goals?
No
Yes
710
Elicit further response or override request for user information
712
Reinforce selection
X should meet your needs because of goal/circumstance Y
714
Offer specific recommendations
You should get Q for only W because of goal/circumstance S
628

Figure 7

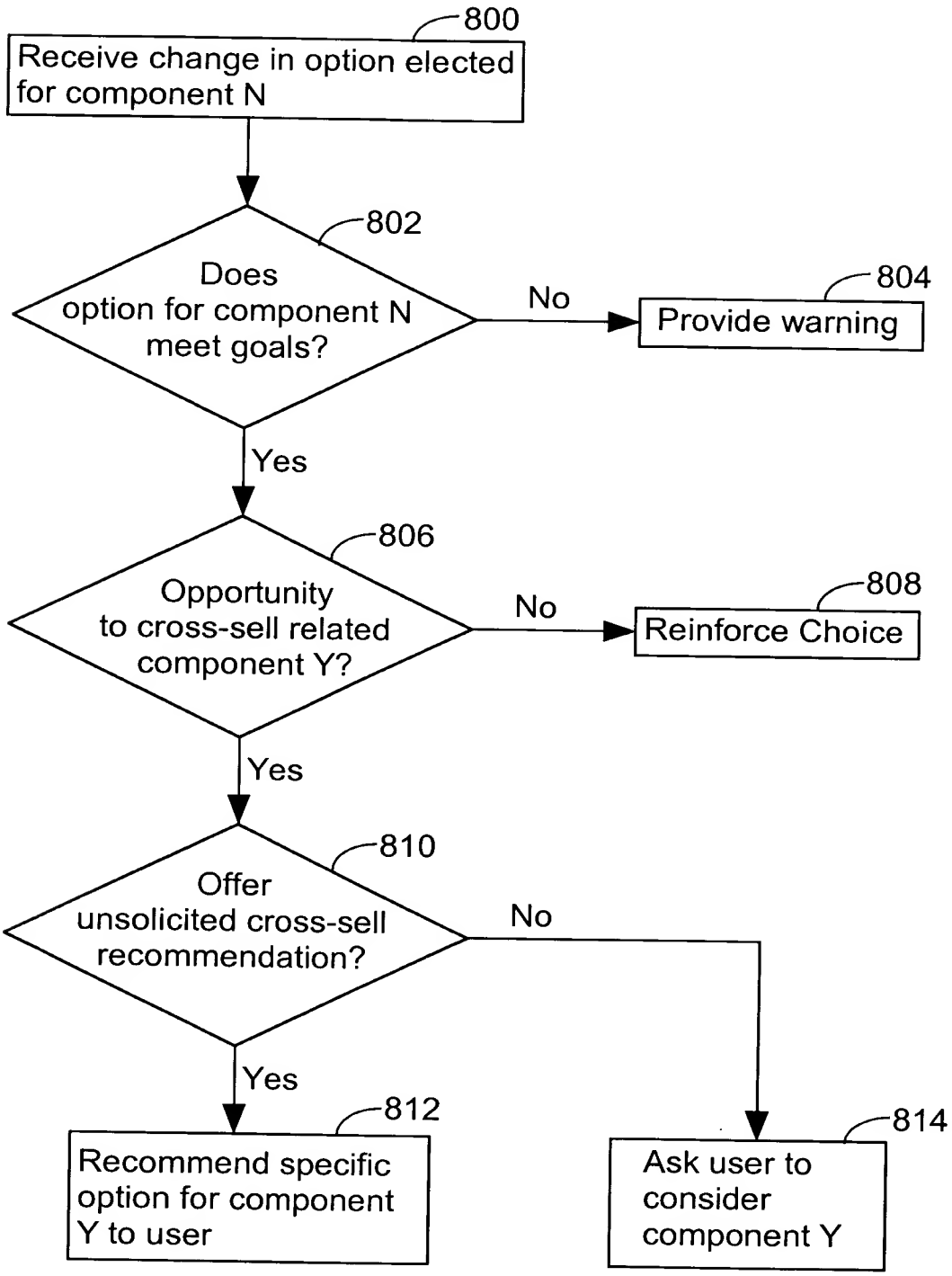
800
Receive change in option elected for component N
802
Does option for component N meet goals?
No
804
Provide warning
Yes
806
Opportunity to cross-sell related component Y?
No
808
Reinforce Choice
Yes
810
Offer unsolicited cross-sell recommendation?
No
Yes
812
Recommend specific option for component Y to user
814
Ask user to consider component Y

Figure 8

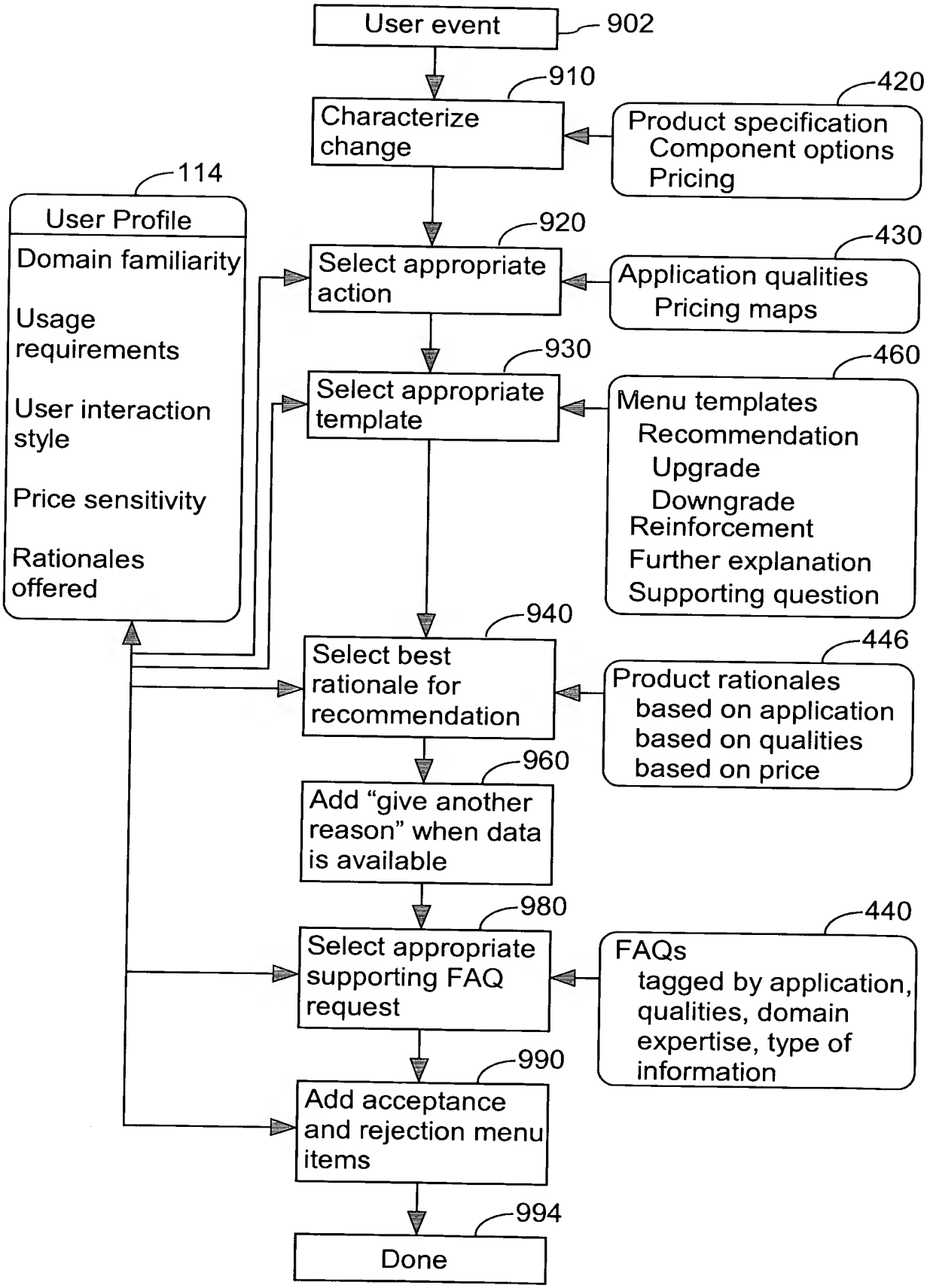
User event
902
910
Characterize change
420
Product specification
Component options
Pricing
114
User Profile
Domain familiarity
Usage requirements
User interaction style
Price sensitivity
Rationales offered
920
Select appropriate action
430
Application qualities
Pricing maps
930
Select appropriate template
460
Menu templates
Recommendation
Upgrade
Downgrade
Reinforcement
Further explanation
Supporting question
940
Select best rationale for recommendation
446
Product rationales
based on application
based on qualities
based on price
960
Add "give another reason" when data is available
980
Select appropriate supporting FAQ request
440
FAQs
tagged by application, qualities, domain expertise, type of information
990
Add acceptance and rejection menu items
994
Done

Figure 9

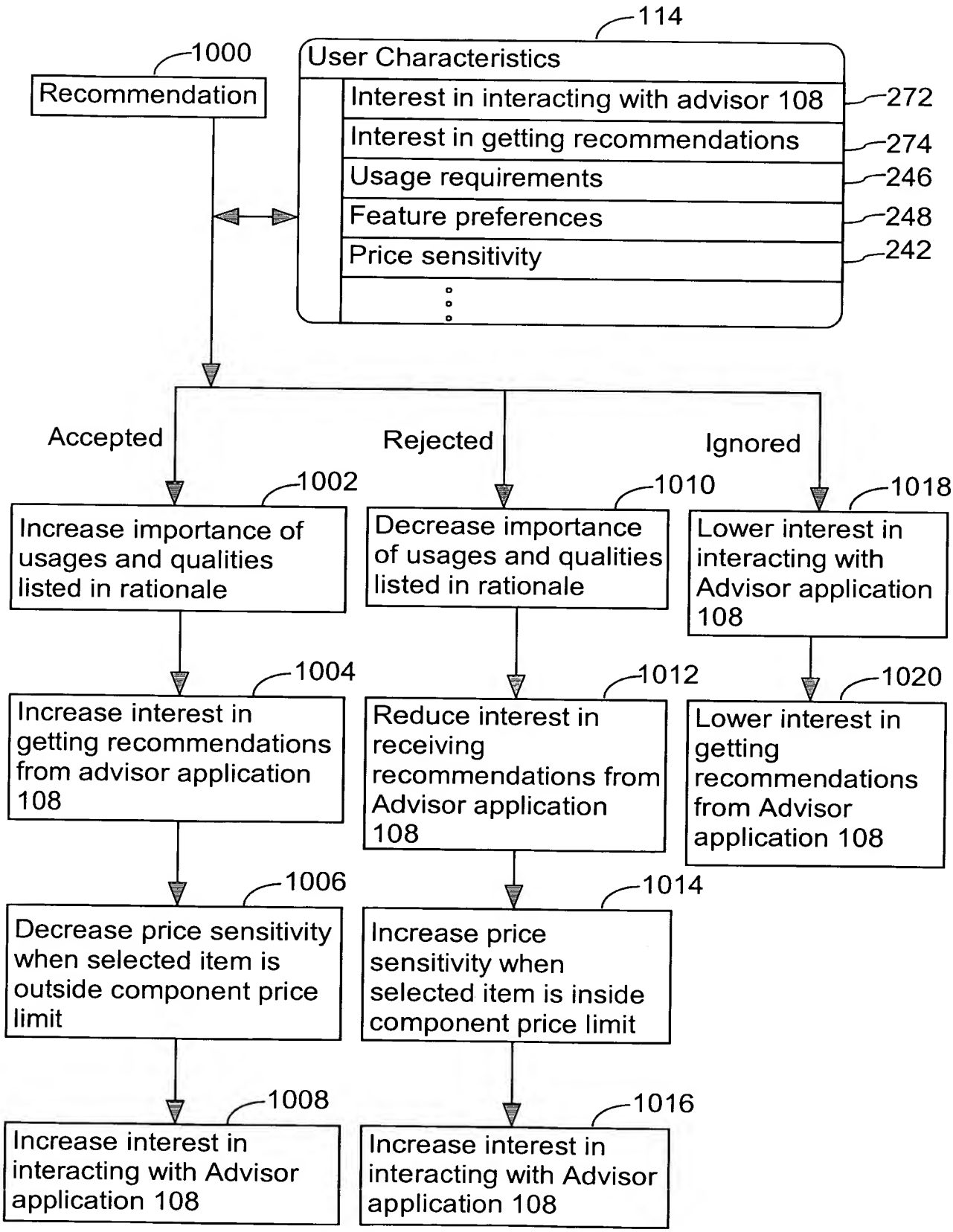
114
1000
Recommendation
User Characteristics
Interest in interacting with advisor 108
272
Interest in getting recommendations
274
Usage requirements
246
Feature preferences
248
Price sensitivity
242
Accepted
Rejected
Ignored
1002
Increase importance of usages and qualities listed in rationale
1010
Decrease importance of usages and qualities listed in rationale
1018
Lower interest in interacting with Advisor application 108
1004
Increase interest in getting recommendations from advisor application 108
1012
Reduce interest in receiving recommendations from Advisor application 108
1020
Lower interest in getting recommendations from Advisor application 108
1006
Decrease price sensitivity when selected item is outside component price limit
1014
Increase price sensitivity when selected item is inside component price limit
1008
Increase interest in interacting with Advisor application 108
1016
Increase interest in interacting with Advisor application 108

Figure 10

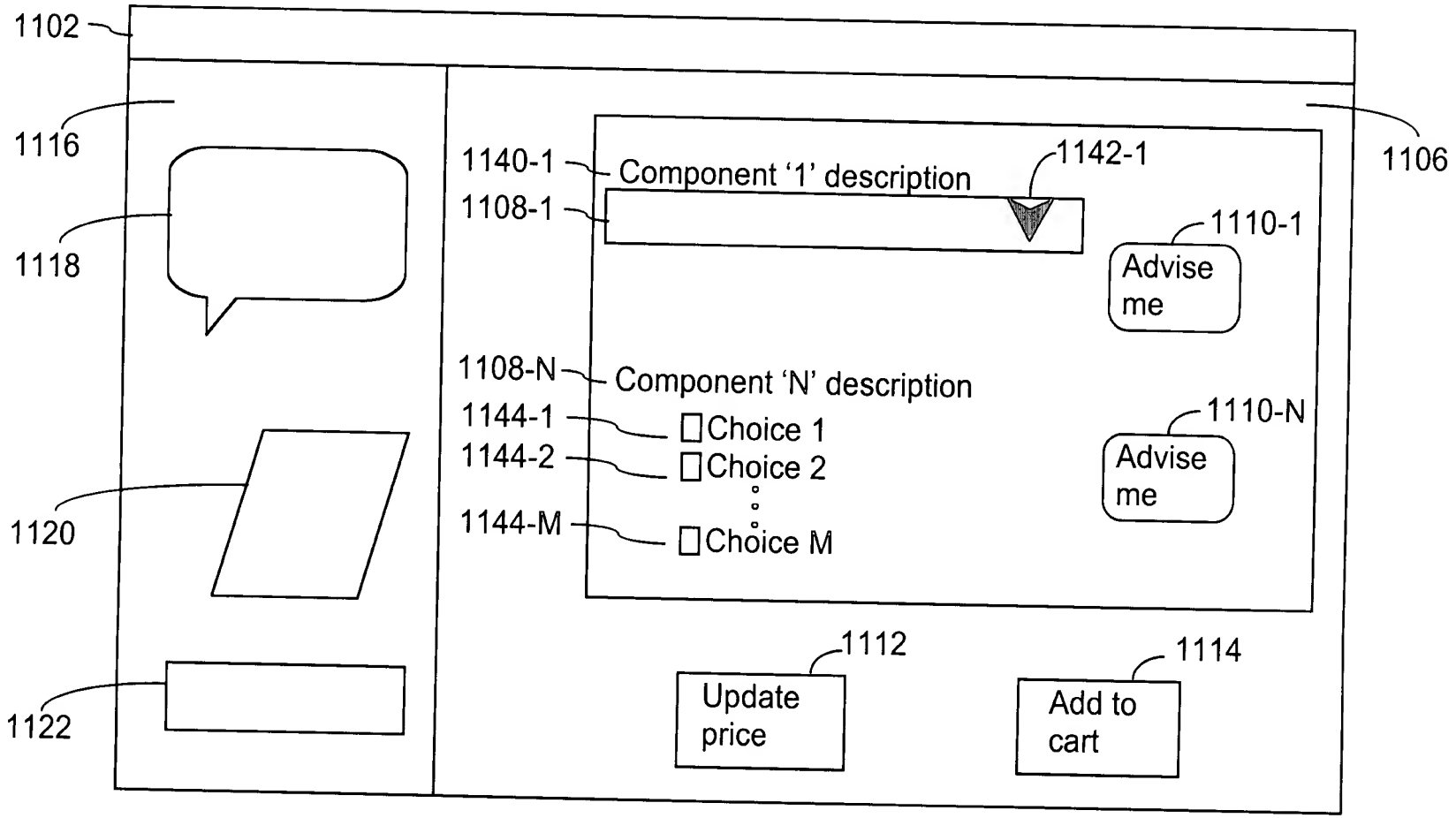
1102
1116
1118
1120
1122
1106
1140-1
Component '1' description
1142-1
1108-1
1110-1
Advise me
1108-N
Component 'N' description
1144-1
Choice 1
1144-2
Choice 2
1144-M
Choice M
1110-N
Advise me
1112
Update price
1114
Add to cart

Figure 11